

What is claimed is:

1. A method for predicting pregnancy outcome in a human female subject comprising
5 measuring the activity of MMP-9 in the follicular fluid from a follicle of a mature oocyte
and predicting from the activity of MMP-9 measured the probability of establishing
pregnancy.
2. The method of diagnosing the chances of pregnancy of claim 1, wherein the activity of
10 MMP-9 is measured by using zymography.
3. The method of diagnosing the chances of pregnancy of claim 1, wherein the diameter of
the follicles selected is not less than 17mm.
- 15 4. The method according to claim 1, which further comprises obtaining said follicular fluid
from said follicle of said mature oocyte.
5. A method for predicting whether implantation of a fertilized oocyte from a human
female subject will result in pregnancy in a female subject following assisted
20 reproductive technology comprising
 - (a) removing oocytes together with follicular fluid from a female subject;
 - (b) measuring the activity of MMP-9 in the follicular fluid;
 - (c) predicting from the activity of MMP-9 measured the probability of establishing
pregnancy by in vitro fertilization-embryo transfer and
 - 25 (d) fertilizing oocytes from a human female subject whose MMP-9 activity is above a
predetermined threshold level.

6. A diagnostic kit for predicting pregnancy outcome comprising a protein substrate from MMP-9
7. The diagnostic kit of diagnosing the chances of pregnancy of claim 6, wherein protein
- 5 substrate is selected from the group consisting of collagen IV, collagen V, collagen VI, elastin, proteoglycan and gelatin.